REMARKS

Reconsideration of the application is respectfully requested.

Claims 1-15 are before the Examiner. Amendments to the Claims are shown based on Claims 1-15 of the corresponding issued U.S. Patent No. 6,271,323 ("US-323".) Claims 1, 5, 6, 7, and 8 have been amended as previously discussed in the RCE filed October 12, 2007. Claims 2, 3, 4, and 9 have been cancelled. New Claim 46 has been added. Claims 1, 5-8, 10-15 and 46 remain in the application.

Consistent with the RCE filed October 12, 2007, Claim 1 has been amended to further clarify that the recited catalyst system comprises a Group 15 containing tridentate ligated hafnium catalyst compound as previously recited in original Claim 4 of the instant application. In addition, Claim 1 has been amended to further clarify that R^1 and R^2 are independently a linear, branched or cyclic C_2 to C_{20} alkyl group. Support for this amendment may be found, for example, at Col. 4, lines 56-57 of US-323. The term "metallocene type", resultant from a previous amendment, and objected to by the Action, has been amended to remove the word "type" consistent with the claims of US-323.

Claim 5 has been amended to properly depend from Claim 1.

Claims 6 and 7 have been amended to further clarify Applicants' presently claimed invention. Support for these amendments may be found, for example, at Col. 5, lines 39-57 of US-323, as previously discussed in the Response dated February 12, 2004.

Claim 8 has been amended to further limit R^1 and R^2 to a preferred embodiment. Support for this amendment may be found, for example, at Col. 5, lines 57-58 of US-323.

New Claim 46 has been added to recite a preferred embodiment of Applicants' presently claimed invention. Support for this amendment may be found, for example, at Col. 5, line 39 to Col. 6, line 40 of US-323.

No new matter has been added.

Rejection under 35 U.S.C. §112

Claims 1, 5-8, 10-15, and 46 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite. The Action states that the recited element L (N in Claim 46) cannot have four bonds without having a formal charge, and, thus, the structure renders the claims indefinite. Applicant respectfully disagrees.

Applicant's recited structure is known to one skilled in the art to represent a coordination compound, wherein the tridentate ligand is coordinated with the metal atom (represented herein as element M.) The bond between element L to the metal M is well known in the art to represent a coordinate covalent bond, which is also known in the art as dative bond. The dative bond represents a description of covalent bonding between two atoms in which both electrons shared in the bond come from the same atom. Accordingly, in maintaining the formulism by which coordination compounds are described in the art, no formal charge need be included on element L. These compounds are embodied in Examples 1 and 2 of the instant application, and have been characterized as being tridentate via ^1H NMR. As such, removal of the rejection is respectfully requested.

Rejection under 35 U.S.C. §102

Claims 1-15 have been rejected under 35 U.S.C.§ 102(b) as being anticipated by JP 10-330412 to Sigimura *et al.* (JP-412), as evidenced by the English translation thereof. Applicants respectfully disagree.

JP-412 discloses at Page 4, claim 1, an olefin polymerization catalyst that characteristically comprises

(A) a transition metal compound from Group 4 of the Periodic Table that contains a ligand that has the cyclopentadienyl skeleton;

(B) a transition metal amide compound represented by general formula (I) or (I-1)

$[(R_3Si)_2N]_kMX_{j-k}$ (I)

wherein

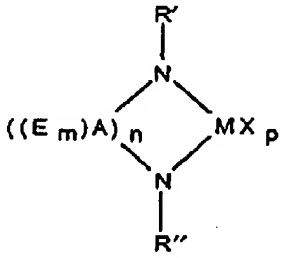
M is a transition metal atom from Groups 3-6 of the Periodic Table,

j is the valence of the transition metal atom M,

k is an integer from 1 to j,

each R is independently selected from hydrocarbyl and halogenated hydrocarbyl wherein two of the groups R may be connected to each other to form a ring, and

X represents the hydrogen atom, halogen atoms, C_1 to C_{20} hydrocarbyl, C_1 to C_{20} halogenated hydrocarbyl, an oxygen-containing group, a sulfur-containing group, or a silicon-containing group, wherein when j-k >= 2 the X's may be the same as each other or may differ from one another,



(I-1)

wherein

M represents a transition metal atom from Groups 3-6 of the Periodic Table, R' and R" are each independently selected from the hydrogen atom, hydrocarbyl, halogenated hydrocarbyl, organosilyl groups, and substituents that contain at least 1 element selected from nitrogen, oxygen, phosphorus, sulfur, and silicon,

m is an integer from 0 to 2,

n is an integer from 1 to 5,

A is an atom from Groups 13-16 of the Periodic Table, wherein when n >= 2 the plurality of said A's may be the same as each other or may differ from one another, and

E is a substituent that contains at least 1 element selected from carbon, hydrogen, oxygen, halogen, nitrogen, sulfur, phosphorus, boron, and silicon, wherein when a plurality of groups represented by E are present said plurality of groups represented by E may be the same as each other or may differ from one another and two or more groups represented by E may be connected to each other to form a ring; and

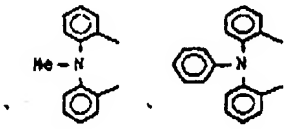
(C) at least one compound selected from

(C-1) organometal compounds,

(C-2) organoaluminumoxy compounds, and

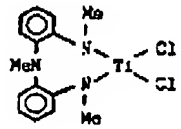
(C-3) compounds that react with the aforesaid transition metal compound (A) or transition metal amide compound (B) to form an ion pair.

JP-412 fails to disclose or suggest Applicants' recited tridentate ligand. Furthermore, JP-412 discloses the following bridging groups: -((Em)A)n-

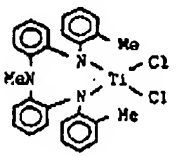


(See numbered paragraph (0104));

Furthermore, this ligand is disclosed by JP-412 to be a bidentate ligand (which is correct in view of the location of the benzene rings in the bridging group), which is in contrast to Applicants' presently claimed invention. This bidentate ligand is further disclosed in numbered paragraphs (0112) and (0140) as follows:



(See numbered paragraph (0112), page 37 of JP-412.)



(See numbered paragraph (0140), page 51 of JP-412.)

Accordingly, JP-412 fails to disclose or suggest Applicants' presently claimed invention. Applicants respectfully request that the rejection be withdrawn.

Claims 1-15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by JP 10-330416 to Sigimura et al. (JP-416) Applicants respectfully disagree.

JP-416 has an almost identical disclosure to that of JP-412. Likewise, JP-416 fails to disclose Applicants' recited tridentate ligand. The structures shown above in JP-412 numbered paragraphs (0104), (0112), and (0140) are disclosed in identical fashion in JP-416 in numbered paragraphs (0077), (0085), and (0113) respectively.

Accordingly, JP-416 also fails to disclose or suggest Applicants' presently claimed invention. Applicants respectfully request that the rejection be withdrawn.

Claims 1-15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by WO 98/34961 to Imuta *et al.*, and under 35 U.S.C. § 102(e) as being anticipated by the U.S. equivalent to WO 98/34961, namely U.S. Patent No. 6,255,419 to Imuta *et al.* (collectively referred to as Imuta.) Applicants respectfully disagree.

The Imuta disclosures are directed to transition metal amide compounds having a bidentate ligand. In fact, the Imuta disclosure is similar in nearly all respects to JP-412 and JP-416, and Imuta and JP-412 and JP-416 have the same common inventors. Similar to the above discussed references, Imuta fails to disclose or suggest Applicants' recited tridentate ligand. The above referenced structures of JP-412 at numbered paragraphs (0104) and (0140) are disclosed in identical fashion in Imuta at Col. 47, lines 20-30 and at Col. 58, lines 45-60, respectively. Accordingly, the Imuta references also fail to disclose or suggest Applicants' presently claimed invention. Applicants respectfully request that the rejection be withdrawn.

Applicants respectfully request that all rejections be withdrawn and solicit a prompt notice of allowability. In the alternative, Applicants invite the Office to telephone the

undersigned attorney if there are any other issues outstanding which have not been presented to the Office's satisfaction.

Respectfully submitted,

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Date

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